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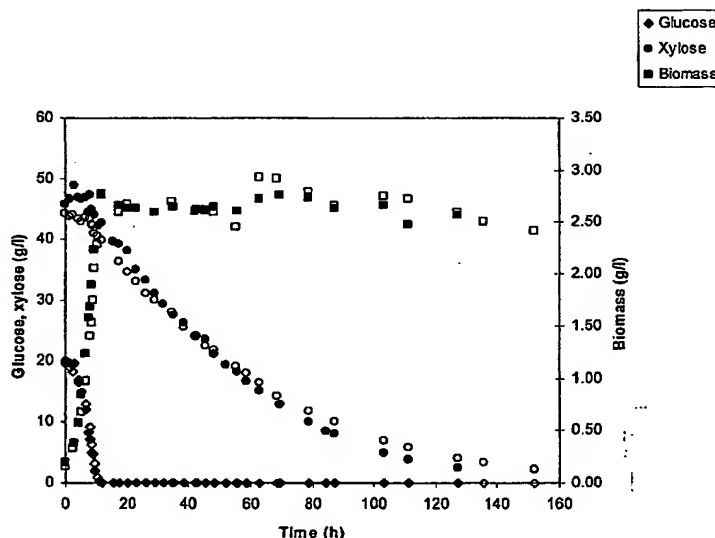
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- (71) Applicant (for all designated States except US): **FLUX-OME SCIENCES A/S** [DK/DK]; Danmarks Tekniske Universitet, Bygning 223, Søtofts Plads, DK-2800 Lyngby (DK).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BRO, Christoffer** [DK/DK]; Snogegårdsvej 2 st. th., DK-2820 Gentofte (DK). **REGENBERG, Brigitte** [DK/DK]; Gammel Kalkbraenderivej 8, 1. th, DK-2100 København (DK).
- (74) Agent: **SMART, Peter, J.**; W.H. Beck, Greener & Co., 7 Stone Buildings, Lincoln's Inn, London WC2A 3SZ (GB).
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(54) Title: METABOLICALLY ENGINEERED MICRO-ORGANISMS HAVING REDUCED PRODUCTION OF UNDESIRE METABOLIC PRODUCTS



(57) Abstract: A metabolically engineered micro-organism has an operative first metabolic pathway in which a first metabolite is transformed into a second metabolite in a reaction in which NAD is a cofactor for a first enzyme, suitably a phosphorylating dehydrogenase, said reaction step producing NADH. Said second metabolite is transformed into at least one further metabolite in a reaction catalysed by a second enzyme, suitably a kinase. The organism has an operative second metabolic pathway characterised by an enzyme activity in excess of a native level in respect of a third enzyme, suitably a non-phosphorylating dehydrogenase, e.g. GAPN, catalysing a non-reversible reaction in which NADP is a cofactor and NADPH is a product. Said first metabolite is transformed into a said further metabolite without the involvement of said second enzyme.



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